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ABSTRACT

A list of materials needed and methodology for "gyotaku" (fish rubbing) are provided. Originally developed in Japan and China during the early 1800's, the technique of fish printing has become popular in the United States during the last 10 years. Because good printing results depend on an understanding of fish anatomy, a chart is provided for this purpose. Practicing the art of gyotaku is considered to be one way to appreciate the beauty and variety of marine organisms. In addition, the technique can be used to make prints of shells, rocks, flowers, and other objects of nature. (Author/JN)

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CALIFORNIA Sea Grant

Marine Advisory Publication

Gyotaku—

Japanese Fish Printing

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Rosy rockfish - *Sebastes rosaceus*

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Division of Agricultural Sciences
UNIVERSITY OF CALIFORNIA

PRINTED MAY 1978

Leaflet 2548

Staghorn Sculpin - *Leptocottus armatus*

Manuscript and fish prints are by Christopher M. Dewees, Extension Marine Resources Specialist, University of California, Davis.

Photos of printing methods are courtesy of the Santa Barbara Museum of Natural History.

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History

"Gyotaku" means fish rubbing (gyo = fish, taku = rubbing). Fish printing originated in Japan or China in the early 1800's. (Plants have been printed in Europe since the 1400's.) In Japan, *gyotaku* is practiced by sportsmen to preserve records of their catches. (A fish print never lies, but fishermen do!) In the United States, it has been practiced as an art form for about 25 years; the late Mrs. Janet Canning was an American pioneer in gyotaku. Fish printing has become especially popular in the U.S. in the last 10 years.

Practicing the art of *gyotaku* (pronounced ghio-ta-koo) is a good way to gain appreciation of the beauty and great variety of marine organisms. You can also use this technique for making prints of shells, rocks, flowers, and other objects of nature.

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Staghorn Sculpin - *Leptocottus armatus*

Seahorses

Materials

1. Obtain a *very fresh fish.* If you catch a fish yourself, keep it cold and try to print it within 24 hours. Otherwise freeze the fish; it will print well when thawed. Be sure that the fish's fins or body are not severely damaged. You can gut the fish if you want to and then fill the body cavity with paper towels.

If you buy the fish at a market, select one with bright red gills, clear eyes, and a fresh smell. Look for fish with large rough scales, spines, reasonable size (6 to 18 inches), and a flat shape. Such fish as rockfish, flounders, bass, and perch are good beginning choices.

2. *Thick water-based inks* are best for beginning. Traditionally, the Japanese have always ground sticks of carbon-based sumi ink. Water-based linoleum block printing ink is another excellent ink, and it is easy to use. Black is a good color to work with, but you may want to try such other dark colors as brown, red, green, or blue.

3. You will need *several brushes,* ranging from size 00 for painting in the eyes to one inch for applying ink to the fish. The larger brushes should be fairly stiff because you want to get a very thin coat of the thick block printing ink on the fish.

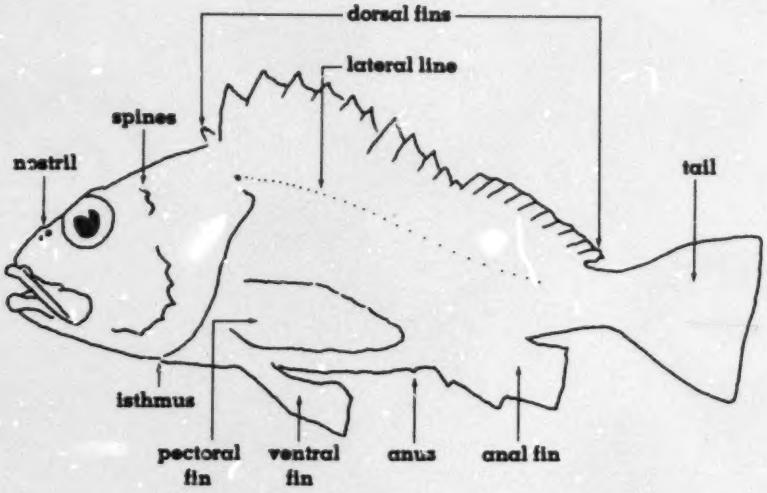
4. *Moisture-tolerant paper* is used for printing. For the beginner, newsprint and sumi-e painting and sketch paper are recommended. Handmade oriental papers ("rice" paper) will give the best results, as you gain experience.

5. You will also need:
newspaper
plastic modeling clay
straight pins

Fish Anatomy

To guarantee good printing results it is useful to understand fish anatomy.

Here is a rough sketch of external fish anatomy.



1. ***Fins:*** Most fish have at least one dorsal fin, a tail fin, an anal fin, a pair of ventral fins, and a pair of pectoral fins. Often the first dorsal fin will have hard, sharp spines, while the other fins will have soft, flexible fin rays. The fin spines and rays are connected by a thin fleshy material that readily collects excess mucus and ink that should be wiped off. Some fish (trout and salmon) have a small fleshy adipose fin that is difficult (but important) to print.

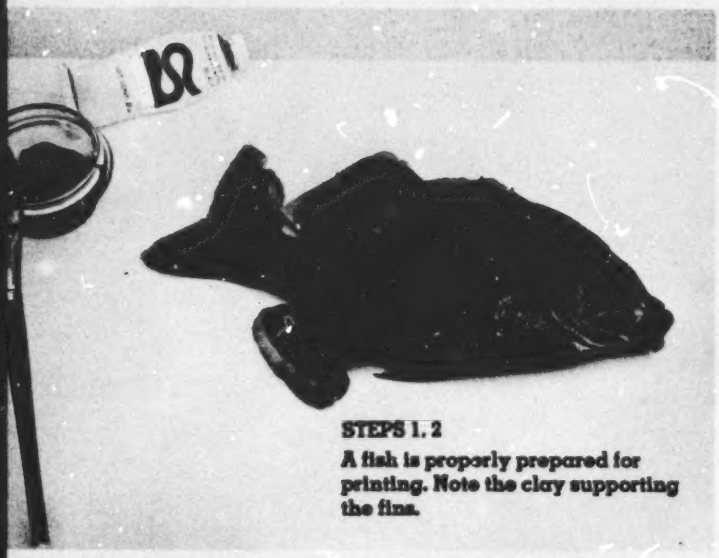
2. ***Scales:*** Fish scales vary in structure and reproduction quality. Sharks have sandpaper-like scales that are really modified teeth; they are difficult to print and require an extra thick coating of ink. Trout, salmon, and smelt have delicate "deciduous" scales that are difficult to print; sometimes removing all scales and printing the scale pocket that the scale lies in is best. Many fish have hard, rough scales (i.e., perch, rockfish); their scales will turn out well in prints and these fish are easiest to work with.

3. ***Lateral line:*** Most fish have at least one lateral line. The lateral line is a series of small organs used by the fish to sense turbulence and pressure changes. If you print correctly, the lateral line will be very striking in your prints.

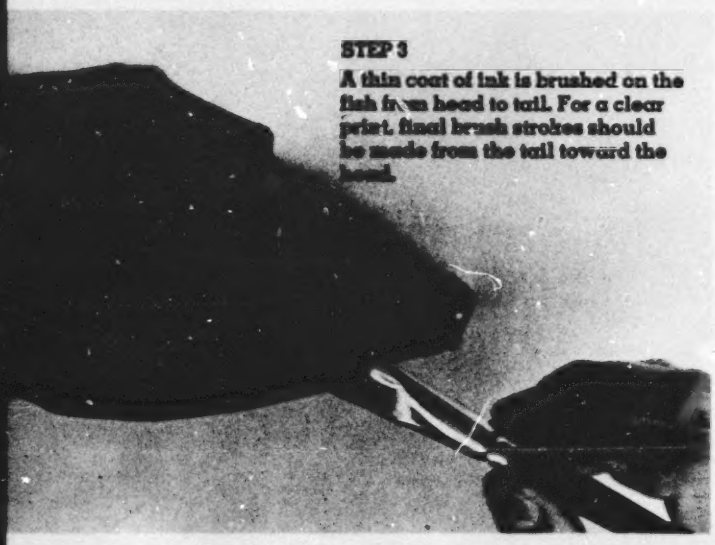
4. ***Spines:*** Many fish have spines around the head. These spines can be poked through the paper. If properly printed, most of the fish's spines will reproduce beautifully.

5. ***Mucus:*** Fish secrete mucus from their bodies to protect themselves from parasites and disease and to help them "slip" through the water easily. The mucus tends to make a fish print less clear and dark in color. For this reason it is important to remove as much mucus as possible by washing the fish thoroughly. Mucus tends to collect on the fins, near the anus, gill cover, isthmus, and nostrils, and under the pectoral fins.

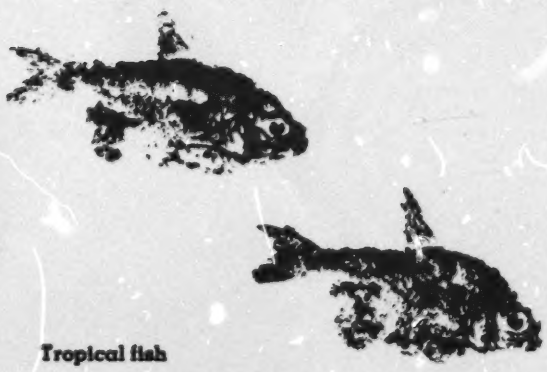
6. ***Body form:*** Fishes' bodies vary greatly in shape. A flat flounder lies on the ocean bottom, while a round, bullet-shaped tuna needs to swim efficiently to capture prey. Generally, the flatter the fish, the easier it is to print.



STEPS 1, 2
A fish is properly prepared for printing. Note the clay supporting the fins.



STEP 3
A thin coat of ink is brushed on the fish from head to tail. For a clear print, final brush strokes should be made from the tail toward the head.



Tropical fish

Methods

1. Clean the outside of the fish with soap and water to remove dirt and mucus. Dry it well. Be careful not to damage the fins or to dislodge too many scales. You should also plug the anus of the fish with a small piece of paper to insure that the fish won't "leak" onto your printing paper.

2. Place the fish on a newspaper covered table. Spread the fins on plastic modeling clay. If necessary, pin the fins to the clay to keep them in position. These first three steps: selecting, cleaning, and setting up of the fish, are important. Take your time on these steps and your prints will turn out well.

3. Brush a thin coat of ink on the fish, using a ½-inch to 1-inch brush. If the ink is too thick (especially in hot weather), you may want to thin it slightly. However, thin, watery inks don't work well. When first applying the ink, stroke your brush from head to tail. Leave the eye blank and paint it in later with a small brush. After the entire fish is covered with ink, brush from tail to head. By reversing the direction of your brushing, you catch the ink under the edges of the scales and spines and improve your print.

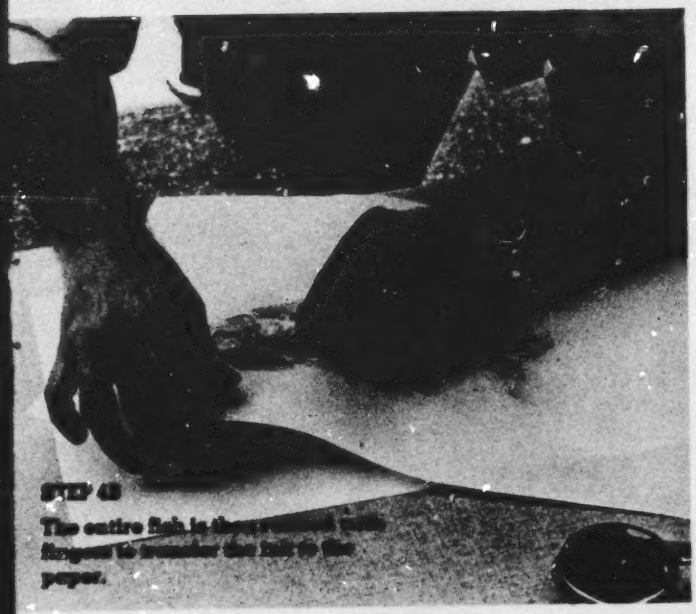
4. Place the moisture-tolerant paper carefully over the top of the fish. Press the paper firmly with your fingers over the entire inked fish. Be careful not to wrinkle or move the paper excessively. (With round-bodied fish you may have to move the paper somewhat to avoid wrinkles.) Excessive paper movement can result in "double prints." When you finish rubbing the fish, gently remove the paper. Then, study your results for mistakes, re-ink the fish, and do another print. A good fresh fish can yield three to ten good prints.

5. With a small brush paint in the eye.

6. Wash off the fish and prepare it for dinner.

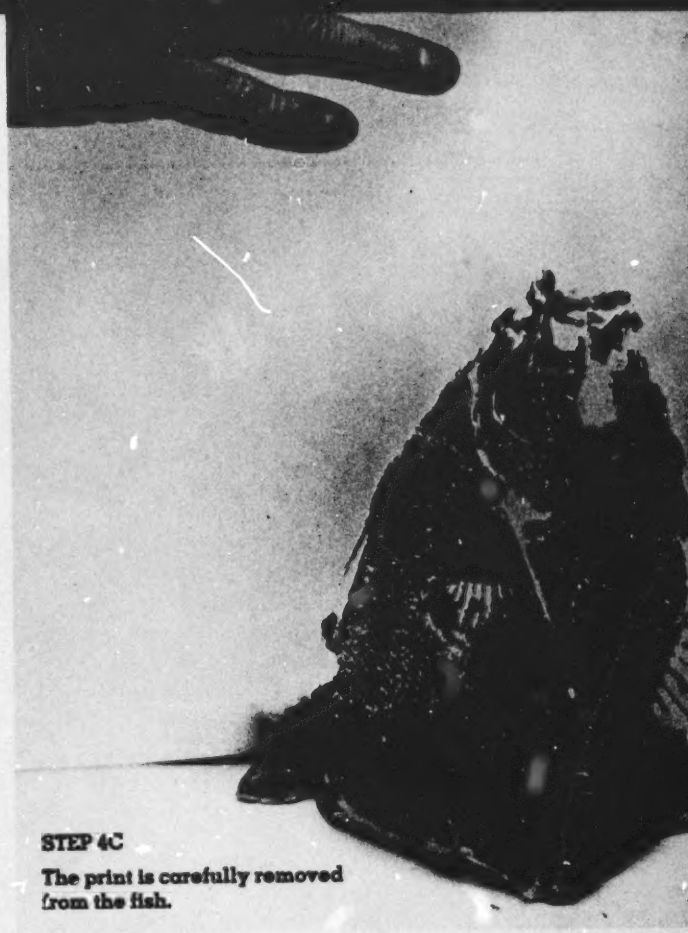
STEP 4A

Paper is placed carefully over the inked fish.



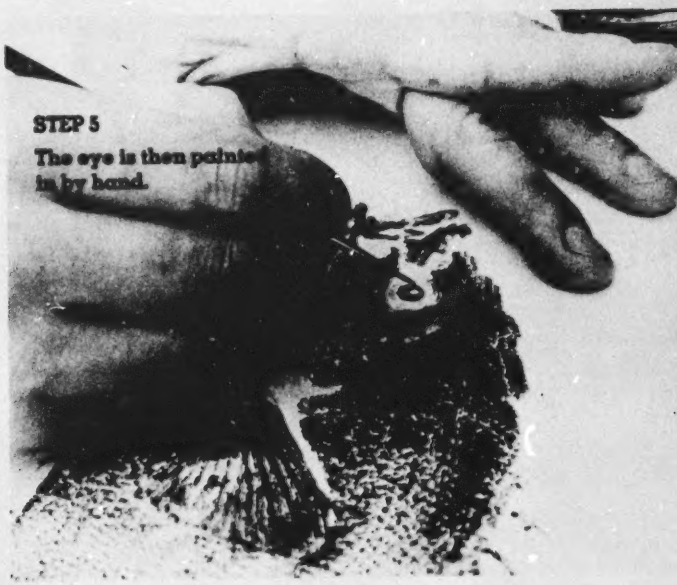
STEP 4B

The entire fish is [illegible] fingers to transfer the ink to the paper.



STEP 4C

The print is carefully removed from the fish.



STEP 5

The eye is then painted in by hand.

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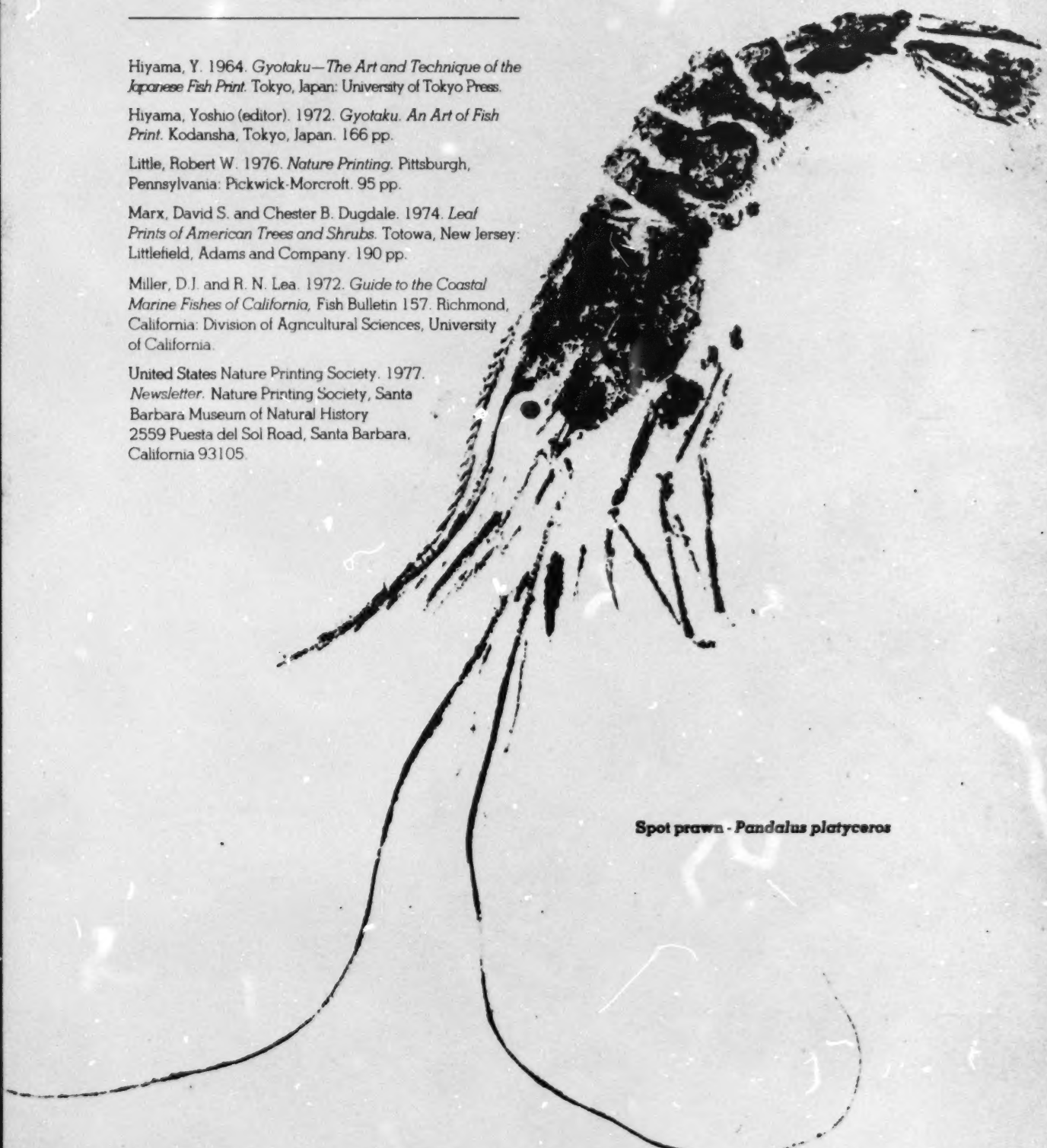

Spot prawn - *Pandalus platyceros*